



REPUBLIC OF THE PHILIPPINES

NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY

# Strengthening Resiliency to Multiple Risks through Spatial Planning

5th Spatial Planning Platform (SPP) Conference: National Spatial Planning for  
Integrated and Climate Resilient Urban Development

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Presented by:

**Remedios S. Endencia**

Director, National Economic and Development Authority

Philippines

# Philippines



Population: 108.7 million

Capital: Metro Manila

Geography: An archipelago comprising of 7,641 islands with a total land area of 300,000 sq. km.

Risk Profile:

- Located in the western Pacific Ocean where tropical cyclones are formed. It has an average of 20 typhoons every year.
- Also situated in a highly seismic area in the Pacific Ring of Fire where there are two tectonic plates (Eurasian and Pacific Plates), making it highly-prone to earthquakes and volcanic eruptions

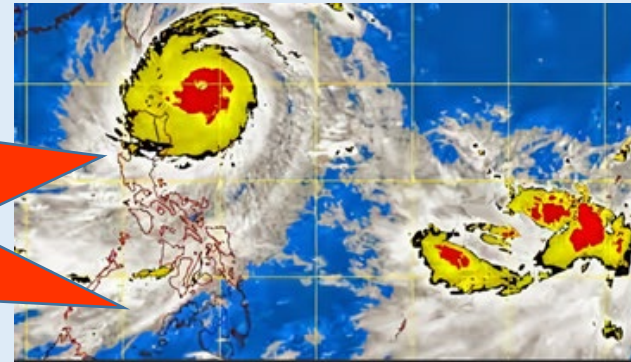


# In the midst of multiple hazards, unprecedented challenges...



Taal volcano eruption in January 2020

Source: pageone.ph



Three successive typhoons, Molave, Goni, Vamco in 2020 and Typhoon Rai in 2021, and Typhoon Nalgae in 2022

Source: internet



# Rising above the devastation: recovery from disasters



Settlements rehabilitation and reconstruction have the highest costs and the longest time to implement, relative to other sectors

- ✓ Building communities, not just houses
- ✓ In-situ vs. resettlement
- ✓ Incorporate lessons from multiple hazards
- ✓ (eg., more open spaces, alternative transport modes through bike lanes, improve walkability)



Source: Inquirer.net

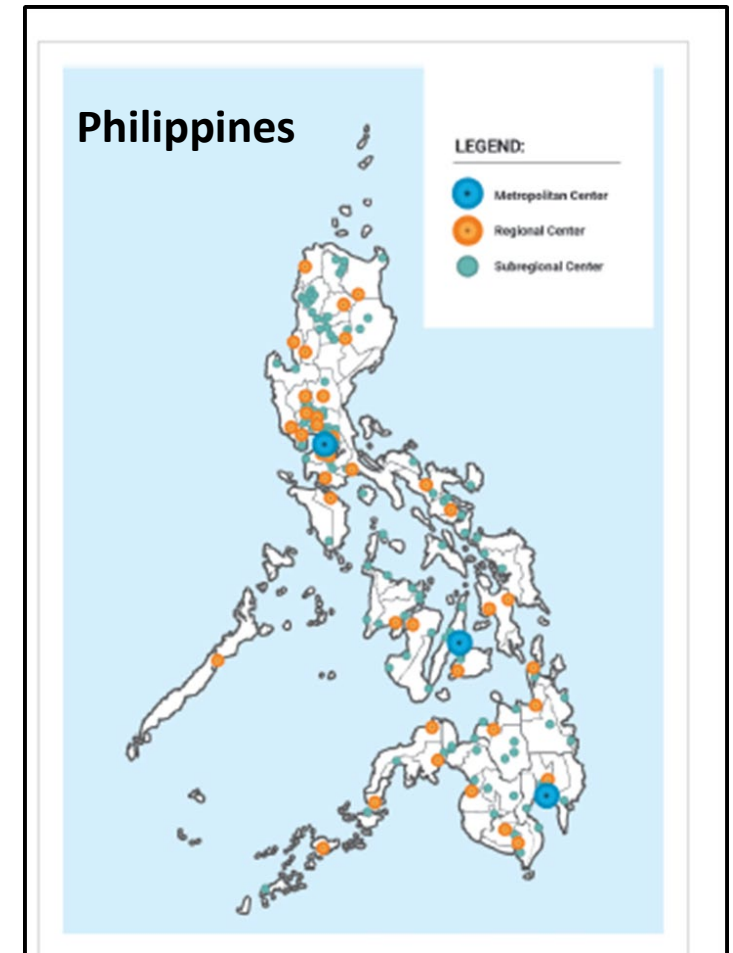


Source: pinoynewz.com

# Sustained recovery, strengthening resiliency through spatial planning

The national spatial strategy (NSS)

- Over-all framework for spatial planning; contributes to inclusive growth through improved connectivity and better access to economic opportunities and social services across regions.
- Seeks to decongest NCR and directs growth to key centers in the country
- Incorporates vulnerability reduction strategies to mitigate or reduce impacts of disasters
- Serves as reference for sectoral plans, regional and local development plans and land use plans of LGUs to ensure the coherence



# Sustained recovery, strengthening resiliency through spatial planning

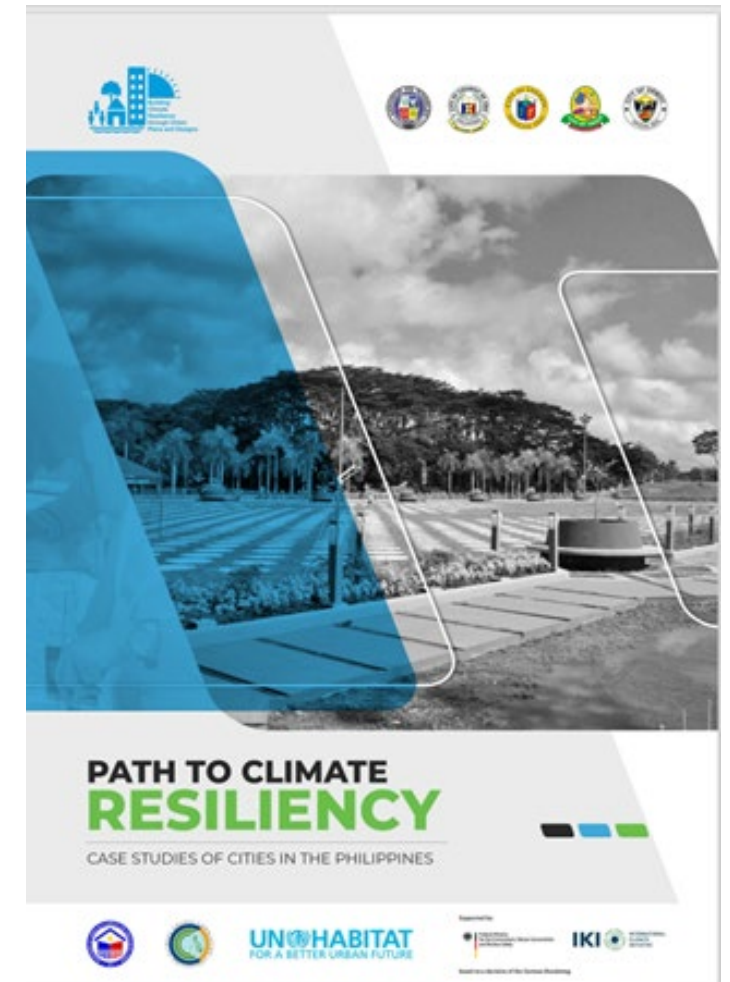
## Building climate resilient urban plans and designs

Introduces innovative approaches for adapting to the impacts of climate change using science-based information and climate and disaster risk assessments in land use plans

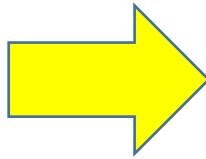
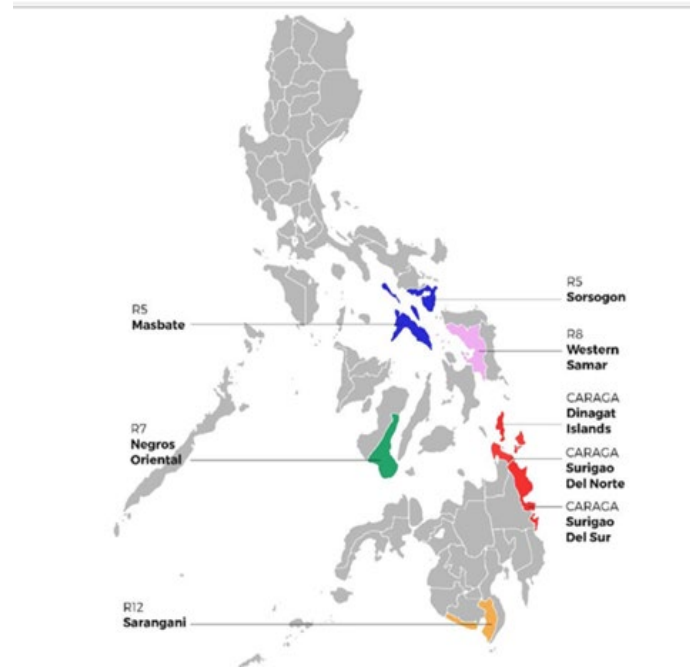
Among the strategies adopted by its pilot cities are:

- **Combating urban heat stress** through natural cooling systems, designing esplanades or linear parks along waterways
- **Addressing flooding** through sponge city approaches such as unpaved surfaces, increasing tree covers and urban swales
- **Lowering greenhouse gas** emissions by redesigning streetscapes to encourage non-motorized mobility
- **Conserving water** through water impounding systems and rain water harvesting to augment water supply for domestic and agricultural uses

Source: UN- Habitat Philippines, DHSUD, CCC, Cities of Angeles, Cagayan de Oro, Legaspi, Ormoc and Tagum



✓ Programmatic and convergence approach for prioritizing climate vulnerable areas in budget allocation



The Risk Resiliency Program identifies projects that strengthen the resiliency of natural ecosystems and adaptive capacities of vulnerable communities in eight provinces located **along major river basins**

The program convergence budgeting provides funding to an integrated set of programs and projects across government agencies.

Source: DRR-CCAM/ DENR

✓ Improving LGU access to government financing for climate change projects

## **Moving forward: what needs to be done**

1. Develop spatially- referenced national exposure system and data bases to improve urban planning and disaster risk reduction
2. Provide real- time spatial information for disaster response, recovery and monitoring of land use changes
3. Sustain capacity building for LGUs in interpreting climate data, risk assessments, geographic information



*“Show me your worst, the earth said to the storm,  
and I will blossom anyway.”*

Author unknown

**धन्यवाद**

**Thank you!**

**ありがとうございました**